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United States Patent [19]

Bird et al.

[11] **Patent Number:** 5,483,263[45] **Date of Patent:** Jan. 9, 1996[54] **ELECTRO-OPTIC DEVICE**[75] Inventors: **Neil C. Bird**, Horley; **John M. Shannon**, Whyteleaf, both of England[73] Assignee: **U.S. Philips Corporation**, New York, N.Y.[21] Appl. No.: **241,317**[22] Filed: **May 11, 1994**[30] **Foreign Application Priority Data**

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[51] **Int. Cl.⁶** **G09G 3/20**; G09G 3/36[52] **U.S. Cl.** **345/207**; 345/104[58] **Field of Search** 345/207, 98, 104, 345/182, 183, 205, 206, 4, 5; 365/215[56] **References Cited****U.S. PATENT DOCUMENTS**

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Primary Examiner—Jeffery Brier*Attorney, Agent, or Firm*—Michael J. Balconi-Lamica[57] **ABSTRACT**

A first substrate (2) carries an electro-optic display (3) having a first array (4) of display elements (5) and conductors (12,13) for addressing individual display elements (5) to enable the display to display an image. A second substrate (6) carries a second array (7) of elements (8) addressable by conductors (9,10). Photosensitive elements (11) are associated with the conductors (9,10) for supplying, when illuminated, signals along the conductors (9,10) for accessing the elements (8) of the second array (7), the second substrate (6) being provided over the first substrate (2) so that the photosensitive elements (11) are associated with selected ones (5') of the display elements (5) for enabling the selected display elements (5a) to illuminate the photosensitive elements (11) allowing access of the elements (8) of the second array (7) to be controlled by the display (3) so that it is not necessary to provide separate drive circuitry for the second array.

16 Claims, 6 Drawing Sheets